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COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			EXAMINER MEHTA, BHISMA	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: In line 19 of page 5, it appears that “sad separator piston” should be replaced with “said separator piston”.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 2-4, 9-16, 18, 20, and 23-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The second hydraulic chamber being connected to the first hydraulic chamber so as to allow for continuous regulation of flow resistance lacks support in the specification as originally filed. Even though the specification discloses the second hydraulic chamber being connected to the first hydraulic chamber so as to allow for regulation of flow resistance, there is no disclosure of the continuous regulation of the flow resistance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 9-16, 18, and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Haar et al (U.S. Patent No. 6,440,099). In Figure 2, Haar et al show a syringe having a slide valve (33) with a front element, a feed piston (18a) that is longitudinally slidable in a carpule volume and that has a pressure plate (21a), a first hydraulic chamber (adjacent to the pressure plate) which is connected to the feed piston pressure plate, a second hydraulic chamber (34a), and a control hole having an opening between the first and second hydraulic chamber. The second hydraulic chamber is behind and connected to the first hydraulic chamber, and is thus considered to be capable of allowing for continuous regulation of flow resistance. The slide valve has a slide valve pressure plate which is connected to the first hydraulic chamber. The front element of the slide valve projects or protrudes into the first hydraulic chamber and is considered to be capable of allowing for haptic feedback of the pressure in the first hydraulic chamber. The slide valve (33) is capable of closing or progressively opening the opening of the control hole between the first and second hydraulic chambers. As to claims 9 and 10, a touch-sensitive key pad (32) causes the control hole to open at least substantially parallel to the axis of movement of the slide valve when pressed and is disposed at least partially in a front half of the syringe. The axis of movement of the

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slide valve is disposed perpendicular to a longitudinal axis of the syringe. The slide valve is biased with a biasing force closing the control hole where the biasing force is the force that keeps the key pad in the position shown in Figure 2. As to claims 13-16, the valve (33) is considered to be the indexer piston that is connected to the first hydraulic chamber where a foot of the indexer piston projects into the first chamber. The indexer piston is slidably mounted and has a limit stop (the portion of the syringe where the key pad abuts the syringe in Figure 2). The indexer piston is considered to be mounted such that it is biased against an exit direction. As to claim 18, the feed piston completely lies within a feed cylinder (23). As to claim 24, Haar et al show a syringe having a slide valve (33) with a front element, a feed piston (18a) that is longitudinally slidable in a carpule volume and that has a pressure plate (21a), a first hydraulic chamber (adjacent to the pressure plate) behind and connected to the feed piston pressure plate, a second hydraulic chamber (34a), and a control hole having an opening between the first and second hydraulic chamber. The second hydraulic chamber is behind the feed piston and connected to the first hydraulic chamber, and is thus considered to be capable of allowing for continuous regulation of flow resistance. The slide valve has a slide valve pressure plate which is connected to the first hydraulic chamber. The front element of the slide valve projects or protrudes into the first hydraulic chamber and is considered to be capable of allowing for haptic feedback of the pressure in the first hydraulic chamber. The slide valve (33) is capable of closing or progressively opening the opening of the control hole between the first and second hydraulic chambers. As to claim 25, Haar et al show a syringe having a slide valve (33)

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with a front element, a feed piston (18a) that is longitudinally slidable in a carpule volume, a hydraulic system connected to the feed piston and comprising at least a first hydraulic chamber (adjacent to the pressure plate), an indexer piston which is part of the slide valve and which is connected to the first hydraulic chamber, a second hydraulic chamber (34a), and a control hole having an opening between the first and second hydraulic chamber. The position of the indexer piston within the syringe (i.e. as positioned in Figure 2 and as positioned in Figure 3) would make the pressure in the hydraulic chamber optically recognizable where a haptic feedback is provided alternatively or additionally. The second hydraulic chamber is behind and connected to the first hydraulic chamber, and is thus considered to be capable of allowing for continuous regulation of flow resistance. The slide valve has a slide valve pressure plate which is connected to the first hydraulic chamber. The front element of the slide valve projects or protrudes into the first hydraulic chamber and is considered to be capable of allowing for haptic feedback of the pressure in the first hydraulic chamber. The slide valve (33) is capable of closing or progressively opening the opening of the control hole between the first and second hydraulic chambers.

6. Claims 2-4, 9-12, 18, 20, and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Love (U.S. Patent No. 2,650,591). In Figure 7, Love shows a syringe having a slide valve (37) with a front element (38), a feed piston (10) that is longitudinally slidable in a carpule volume and that has a pressure plate, a first hydraulic chamber (25) which is connected to the feed piston pressure plate, a second hydraulic chamber (28), and a control hole having an opening between the first and second

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hydraulic chamber. The second hydraulic chamber is behind and connected to the first hydraulic chamber, and is thus considered to be capable of allowing for continuous regulation of flow resistance. The slide valve has a slide valve pressure plate (27) which is connected to the first hydraulic chamber. The front element of the slide valve projects or protrudes into the first hydraulic chamber and is considered to be capable of allowing for haptic feedback of the pressure in the first hydraulic chamber. The slide valve (37) is capable of closing or progressively opening the opening of the control hole between the first and second hydraulic chambers. A separator piston (29) is disposed behind the second hydraulic chamber and is slidably mounted such that it is capable of reducing the size of the second chamber and of enlarging a pressurization space (i.e. the space within the first hydraulic chamber). The second hydraulic chamber would be caused to become smaller by the same amount as the pressurization space would be enlarged. As to claims 9 and 10, a touch-sensitive key surface (41) causes the control hole to open at least substantially parallel to the axis of movement of the slide valve when pressed and is disposed at least partially in a front half of the syringe. The axis of movement of the slide valve is disposed perpendicular to a longitudinal axis of the syringe. The slide valve is biased with a biasing force to close the control hole in the form of portion (39) of the slide valve. As to claim 18, the feed piston completely lies within a feed cylinder (21). As to claim 20, the feed piston is in use fed forward by a pressure in the first hydraulic chamber where there is a separator piston (29) which protrudes into a pressure chamber and into the second hydraulic chamber. The separator piston is slidable so as to reduce the volume of one chamber selected from

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the group consisting of the pressure chamber and the second hydraulic chamber and to enlarge the volume of the other chamber selected from the group consisting of the pressure chamber and the second hydraulic chamber when being slid.

Response to Arguments

7. Applicant's arguments filed November 14 2008 have been fully considered but they are not persuasive.

In response to the Applicant's arguments in line 15 of page 16 to line 11 of page 19, there is no support or disclosure in the specification as originally filed for the continuous regulation of the flow resistance. Applicant's remarks that the cited sentences on pages 17 and 18 of the remarks make clear that the claimed syringe has a continuous regulation or a continuous controlling of the slide valve are not persuasive as there is no disclosure of the continuous regulation or continuous controlling in the cited sentences. The cited sentences merely disclose that the volume flow can be controlled as a function of the valve travel. It is also unclear how the disclosure of a "proportional way of controlling along a travel" would lead a person skilled in the art to relate this to a continuous controlling. Furthermore, the claims are drawn to the second hydraulic chamber being connected to the first hydraulic chamber so as to allow for continuous regulation of flow resistance and the cited sentences on pages 17 and 18 of the remarks do not address how the connection of the second hydraulic chamber to the first hydraulic chamber leads to continuous regulation of flow resistance.

Applicant's arguments in line 7 of page 20 to line 16 of page 23 with respect to

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the rejection of claims 9-16, 18, and 23-25 by Haar et al and in line 17 of page 23 to line 8 of page 24 with respect to the rejection of claims 2-4, 9-12, 18, 20, and 23-25 by Love are not persuasive.

a. The second hydraulic chamber of Haar et al is behind and connected to the first hydraulic chamber, and thus is capable of allowing for continuous regulation of flow resistance where the continuous regulation may be considered to be occurring as the slide valve (33) is being moved. In response to applicant's argument that Haar et al do not disclose continuous regulation of flow resistance, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

b. Applicant's remarks in lines 15 of page 20 to line 17 of page 22 are unclear as there is no disclosure in Haar et al that it would take an "extremely short time" for the key pad (32) or the slide valve (33) to move. Furthermore, Haar et al only disclose that the key pad (32) is pushed and are silent on one exerting a high force on the key pad. Therefore, the front element is seen to be capable of allowing for haptic feedback of the pressure as the key pad is pushed. Also, as seen in Figure 3, the front element is seen to protrude into the first hydraulic chamber and is in a position where it is capable for allowing for haptic feedback of pressure. Haar et al do disclose the front element of the slide valve projecting or protruding into the first hydraulic chamber and, thus, the front

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element is considered to be capable of allowing for haptic feedback of the pressure in the first hydraulic chamber as the front element is connected to or part of the key pad or switch (32) and haptic feedback of the pressure or sensing of the pressure in the first chamber would be possible due to the user sensing or feeling the position of the key switch. In response to applicant's argument that it is not possible to get a haptic feedback with the syringe of Haar et al, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

c. The slide valve (33) of Haar et al is capable of closing or progressively opening the opening of the control hole as opening is progressively opened by the slide valve as the key pad is pushed. In response to applicant's argument that Haar et al fail to disclose or suggest that the slide valve is capable of progressively opening the opening of the control hole, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

d. As to Applicant's remarks in lines 9-16 of page 23, the use of "continuous regulation", "progressively opening" and "haptic feedback" only denote an

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intended use. The use of these words is not seen to result in any structural difference which distinguishes over Haar et al.

e. As to Applicant's remarks in line 17 of page 23 to line 8 of page 24, the Love does disclose a slide valve as the slide valve (37) of Love is capable of sliding and does move toward and away from the "outlet passage" or first hydraulic chamber (25) (lines 59-69 of column 3). Applicant's argument that the handle (41) does not give any haptic feedback is unclear as it is the front element which is claimed as allowing for haptic feedback. In addition, in response to applicant's argument that Love fails to disclose haptic feedback, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BHISMA MEHTA whose telephone number is (571)272-3383. The examiner can normally be reached on Mon. through Fri., 7 am to 3 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Sirmons can be reached on 571-272-4965. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bhisma Mehta/

Examiner, Art Unit 3767

/Kevin C. Sirmons/

Supervisory Patent Examiner, Art Unit 3767